
West Nile Virus

Definition: Respondents who answered “no” to the question “Did you take any precautions this past summer to protect yourself from contracting West Nile Virus?”

Prevalence of No West Nile Virus Precautions

- South Dakota 30.2%
- There is no nationwide median for no West Nile Virus precautions

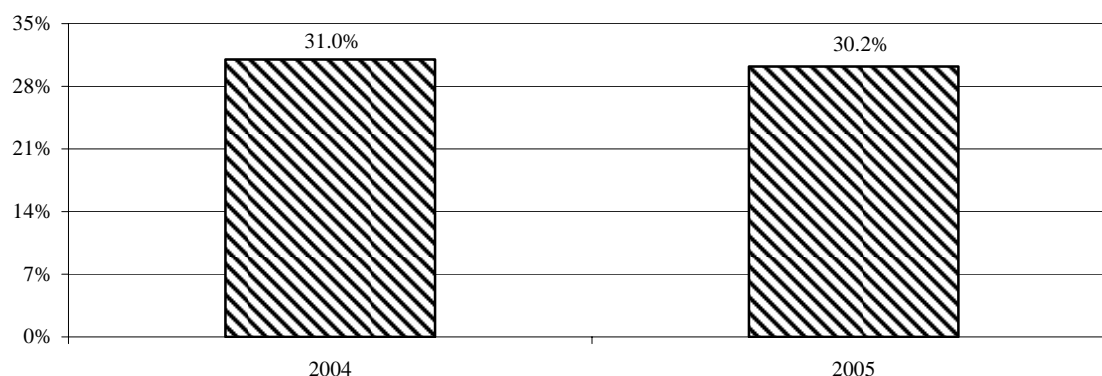
Healthy People 2010 Objective

There was no stated Healthy People 2010 Objective for no West Nile Virus precautions.

Trend Analysis

This question has only been asked two years, 2004 and 2005. There was a slight decrease from 2004 to 2005 in the percent of respondents who did not take any precautions against West Nile Virus.

Figure 44
Percent of Respondents Who Do Not Take Precautions against West Nile Virus, 2004-2005



Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2004-2005

Demographics

Gender Males exhibit a significantly higher prevalence of those not taking any precautions to protect against West Nile Virus than females. This gender difference is evident across several demographics including those 18-64 years of age, whites, those in the higher income groups, and those in the higher education groups.

Age The prevalence of those not taking any West Nile Virus precautions reaches a low with the 25-34 age group and then starts a steady incline with significant increases occurring when the 55-64 and 75 and older age groups are reached.

Race Overall there is no racial difference observed from the available data, but white females do exhibit a significantly higher prevalence for the lack of West Nile Virus precautions than American Indian females.

Region	The west region demonstrates a very high prevalence for the lack of West Nile Virus precautions, while the southeast, northeast, and American Indian counties regions show a very low prevalence. Also, males in the central region exhibit a very low prevalence.
Household Income	Lack of West Nile Virus precautions is much lower in the higher income groups for females, but males do not exhibit as strong an association.
Education	Lack of West Nile Virus precautions decreases as education increases. This includes a significant decrease as the some post-high school level is reached.
Employment Status	Those who are retired exhibit a very high prevalence of no West Nile Virus precautions, while those who are employed for wages, self-employed, a homemaker, or a student show a very low prevalence.
Marital Status	Those who are widowed or have never been married demonstrate a very high prevalence of no West Nile Virus precautions, while those who are married show a very low prevalence. However, females who have never been married also show a very low prevalence.

Table 48
Respondents Who Did Not Take Any Precautions Against West Nile Virus, 2005

	Total			Male			Female		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
Total	6,675	30.2	(28.7-31.8)	2,736	36.0	(33.5-38.5)	3,939	24.7	(23.0-26.4)
Age									
18-24	303	34.8	(28.4-41.9)	119	46.8	(36.4-57.6)	184	21.9	(15.7-29.7)
25-34	828	22.2	(18.5-26.5)	348	29.2	(23.0-36.3)	480	14.9	(11.6-19.0)
35-44	1,080	22.9	(20.1-25.9)	469	29.9	(25.3-34.9)	611	15.9	(12.9-19.5)
45-54	1,324	27.1	(24.5-29.9)	604	31.3	(27.2-35.6)	720	23.0	(19.8-26.7)
55-64	1,135	34.1	(30.9-37.4)	499	39.9	(35.0-44.9)	636	28.0	(24.2-32.2)
65-74	975	35.5	(32.1-39.0)	395	39.3	(33.9-45.0)	580	32.2	(28.0-36.6)
75+	993	44.6	(41.1-48.3)	292	43.8	(37.5-50.4)	701	45.2	(41.0-49.4)
Race									
White	6,007	30.1	(28.5-31.7)	2,465	35.7	(33.1-38.4)	3,542	24.8	(23.1-26.6)
American Indian	461	23.2	(17.7-29.9)	182	30.8	(21.0-42.6)	279	16.2	(11.7-21.8)
Region									
Southeast	1,518	29.0	(26.1-32.0)	629	34.0	(29.3-39.1)	889	23.8	(20.8-27.1)
Northeast	1,483	24.7	(22.2-27.5)	572	30.2	(25.9-34.9)	911	20.1	(17.2-23.3)
Central	1,373	30.5	(27.8-33.4)	594	35.4	(31.1-40.1)	779	25.7	(22.4-29.2)
West	1,617	38.4	(35.5-41.4)	651	46.8	(42.1-51.5)	966	30.7	(27.4-34.1)
American Indian Counties	684	26.3	(22.0-31.0)	290	28.6	(22.1-36.3)	394	23.8	(18.8-29.6)
Household Income									
Less than \$10,000	348	35.5	(29.1-42.4)	*	*	*	*	*	*
\$10,000-\$14,999	456	37.3	(30.4-44.7)	129	43.7	(29.6-58.9)	327	32.8	(27.0-39.2)
\$15,000-\$19,999	467	36.0	(30.6-41.7)	175	41.2	(32.5-50.4)	292	32.2	(25.8-39.3)
\$20,000-\$24,999	620	33.9	(29.2-39.1)	238	43.4	(35.2-51.9)	382	26.7	(21.7-32.4)
\$25,000-\$34,999	922	34.0	(29.9-38.3)	399	42.2	(35.6-49.0)	523	25.7	(21.4-30.5)
\$35,000-\$49,999	1,199	25.9	(22.7-29.3)	545	32.9	(27.8-38.4)	654	18.4	(15.3-22.0)
\$50,000-\$74,999	1,001	22.5	(19.4-25.9)	478	26.7	(22.1-31.9)	523	17.5	(13.9-21.8)
\$75,000+	846	27.3	(23.5-31.4)	454	33.2	(27.7-39.2)	392	18.4	(14.6-22.9)
Education									
8th Grade or Less	309	46.0	(39.3-52.8)	144	46.2	(36.7-56.0)	165	45.7	(36.8-55.0)
Some High School	385	40.8	(32.8-49.3)	167	50.1	(38.0-62.2)	218	29.3	(21.7-38.2)
High School or G.E.D.	2,101	34.2	(31.5-37.0)	922	37.5	(33.3-41.9)	1,179	30.7	(27.6-34.0)
Some Post-High School	1,928	27.7	(24.9-30.7)	691	36.8	(31.7-42.2)	1,237	20.6	(17.9-23.5)
College Graduate	1,946	24.9	(22.5-27.4)	808	29.2	(25.5-33.2)	1,138	20.8	(18.0-23.8)

Table 48 (continued)
Respondents Who Did Not Take Any Precautions Against West Nile Virus, 2005

	Total			Male			Female		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
Employment Status									
Employed for Wages	3,239	26.9	(24.8-29.1)	1,328	33.8	(30.4-37.4)	1,911	19.8	(17.6-22.1)
Self-employed	867	32.4	(28.6-36.5)	577	35.7	(30.9-40.7)	290	25.1	(19.1-32.2)
Unemployed	166	41.0	(28.3-54.9)	*	*	*	*	*	*
Homemaker	397	27.0	(22.2-32.3)	*	*	*	*	*	*
Student	122	22.8	(14.7-33.5)	*	*	*	*	*	*
Retired	1,606	40.3	(37.5-43.1)	591	41.4	(36.9-46.0)	1,015	39.4	(36.0-42.9)
Unable to Work	275	33.8	(27.6-40.6)	114	40.0	(29.9-51.1)	161	28.6	(21.4-37.1)
Marital Status									
Married/Unmarried Couple	3,991	25.8	(24.3-27.5)	1,779	31.8	(29.3-34.4)	2,212	20.0	(18.1-21.9)
Divorced/Separated	933	33.9	(30.3-37.6)	387	38.1	(32.5-44.1)	546	30.4	(26.1-35.2)
Widowed	951	45.7	(42.0-49.4)	161	52.6	(43.1-61.9)	790	44.0	(40.1-48.0)
Never Married	791	39.5	(33.9-45.3)	405	47.4	(39.2-55.7)	386	27.9	(21.8-34.9)

Note: *Results based on sample sizes less than 100 have been suppressed.

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2005

Further Analysis

Following are data illustrating the percent of respondents who have not taken precautions against West Nile Virus for various health behaviors and conditions. For example, 38.2 percent of respondents who stated they do not have a leisure time physical activity have not taken precautions against West Nile Virus, while 27.9 percent of respondents who have a leisure time physical activity have not taken precautions against West Nile Virus.

Table 49
No Precautions Taken Against West Nile Virus for Selected Health Behaviors and Conditions, 2005

Health Behavior or Condition	# Respondents	% No Precautions Against West Nile Virus	95% CI
Fair or Poor Health Status	1,084	41.2	37.4-45.2
Excellent, Very Good, or Good Health Status	5,585	28.6	27.0-30.3
Physical Health Not Good for 30 days of the past 30	507	39.8	34.6-45.4
Physical Health Not Good for 0-29 days of the past 30	6,107	29.5	27.9-31.1
Mental Health Not Good for 20-30 days of the past 30	351	39.6	32.9-46.6
Mental Health Not Good for 0-19 days of the past 30	6,281	29.6	28.1-31.2
Usual Activities Unattainable for 10-30 Days of the Past 30	449	35.5	30.4-40.9
Usual Activities Unattainable for 0-9 Days of the Past 30	6,190	29.8	28.2-31.4
Dissatisfied / Very Dissatisfied with Life	268	37.7	30.0-46.1
Satisfied / Very Satisfied with Life	6,377	29.9	28.4-31.5
Obese (BMI = 30.0+)	1,720	29.9	26.8-33.1
Overweight (BMI = 25.0-29.9)	2,457	30.5	28.2-32.9
Recommended Weight (BMI = 18.5-24.9)	2,152	30.1	27.4-32.9
Underweight (BMI < 18.5)	*	*	*
No Leisure Time Physical Activity	1,707	38.2	35.2-41.3
Leisure Time Physical Activity	4,967	27.9	26.2-29.7
No Moderate Physical Activity	3,553	31.5	29.4-33.6
Moderate Physical Activity	2,903	28.1	25.8-30.5
No Vigorous Physical Activity	5,320	30.7	29.1-32.5
Vigorous Physical Activity	1,263	28.0	24.5-31.8
Less Than Five Servings of Fruits and Vegetables	5,105	30.9	29.1-32.7
At Least Five Servings of Fruits and Vegetables	1,570	27.6	24.8-30.7

Table 49 (continued)
No Precautions Taken Against West Nile Virus for Selected Health Behaviors and Conditions, 2005

Health Behavior or Condition	# Respondents	% No Precautions Against West Nile Virus	95% CI
Not Heard of "Healthy South Dakota" Program	4,471	32.8	30.9-34.8
Heard of "Healthy South Dakota" Program	2,133	24.2	21.9-26.7
Current Smoker	1,264	30.8	27.1-34.7
Former Smoker	1,872	32.7	30.0-35.5
Never Smoked	3,521	28.9	26.8-31.0
Smokeless Tobacco Use	360	37.7	29.8-46.2
No Smokeless Tobacco Use	6,312	29.7	28.2-31.2
Drank Alcohol in Past 30 Days	3,526	29.1	27.1-31.2
No Alcohol in Past 30 Days	3,138	31.5	29.3-33.8
Binge Drinker	874	31.2	26.7-36.2
Not a Binge Drinker	5,738	29.9	28.4-31.5
Heavy Drinker	229	43.1	32.5-54.4
Not a Heavy Drinker	6,352	29.6	28.1-31.1
Hypertension	2,155	33.6	31.2-36.0
No Hypertension	4,513	29.0	27.2-31.0
High Blood Cholesterol	2,035	29.6	27.3-31.9
No High Blood Cholesterol	3,318	28.3	26.4-30.3
No Health Insurance (18-64)	413	39.8	32.8-47.3
Health Insurance (18-64)	4,218	26.2	24.5-28.1
Employer Based Health Insurance Coverage (18-64)	2,764	25.4	23.3-27.6
Private Health Insurance Plan (18-64)	639	29.0	24.0-34.5
Medicare (18-64)	145	38.5	29.4-48.4
Medicaid or Medical Assistance (18-64)	181	20.2	12.8-30.5
The Military, CHAMPUS, TriCare, or the VA (18-64)	212	32.0	24.8-40.3
The Indian Health Service (18-64)	226	22.7	14.5-33.7
No Flu Shot (65+)	490	51.3	46.1-56.4
Flu Shot (65+)	1,472	36.7	33.9-39.6
No Pneumonia Shot (65+)	643	45.6	41.2-50.1
Pneumonia Shot (65+)	1,262	37.2	34.2-40.4
Diabetes	591	32.9	28.6-37.6
No Diabetes	6,083	30.0	28.4-31.6
Current Asthma	502	27.3	22.4-32.7
Former Asthma	175	25.4	17.2-35.7
Never Had Asthma	5,968	30.7	29.0-32.3
Previously Had a Heart Attack	419	40.9	35.3-46.7
Never Had a Heart Attack	6,216	29.7	28.1-31.3
Have Angina or Coronary Heart Disease	433	37.8	32.7-43.2
Do Not Have Angina or Coronary Heart Disease	6,184	29.8	28.2-31.4
Previously Had a Stroke	244	46.2	37.8-54.8
Never Had a Stroke	6,415	29.7	28.2-31.3
Arthritis	2,372	31.6	29.4-33.9
No Arthritis	4,277	29.6	27.7-31.6
Arthritis - Activities Limited	1,139	34.0	30.7-37.5
No Arthritis - Activities Limited	5,507	29.6	27.9-31.3
Physical, Mental, or Emotional Disability	1,554	34.6	31.5-37.8
No Physical, Mental, or Emotional Disability	5,113	29.1	27.4-30.9
Disability with Special Equipment Needed	586	39.4	34.3-44.7
No Disability with Special Equipment Needed	6,089	29.6	28.0-31.2

Table 49 (continued) No Precautions Taken Against West Nile Virus for Selected Health Behaviors and Conditions, 2005			
Health Behavior or Condition	# Respondents	% No Precautions Against West Nile Virus	95% CI
Two or More Hours of TV Watched per Day	4,860	29.7	27.9-31.5
Less Than Two Hours of TV Watched per Day	1,773	31.7	28.7-34.8
Never Been Tested for HIV (18-64)	3,441	28.6	26.5-30.8
Been Tested for HIV (18-64)	1,137	24.5	31.4-27.9
Military Veteran	1,089	36.0	32.6-39.6
Not a Military Veteran	5,583	29.1	27.4-30.8

Note: *Results based on sample sizes less than 100 have been suppressed.

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2005

Table 50, below, displays the respondents who took any precautions during the summer in 2004 and 2005 to protect themselves from contracting West Nile Virus. For both years, nearly always and sometimes were the highest responses and increased slightly from 2004 to 2005.

Table 50 Respondents Who Took Any Precautions This Past Summer to Protect Themselves from Contracting West Nile Virus, 2004 and 2005				
Frequency of Being Outdoors in the Summer Evenings	2005		2004	
	# Respondents	Percent	# Respondents	Percent
Always	1,407	68.0	1,008	64.8
Nearly always	2,324	72.6	1,886	71.6
Sometimes	1,937	71.9	1,859	71.5
Seldom	799	64.1	989	67.9
Never	196	43.7	223	40.0

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2004 and 2005

Table 51, below, list precautions taken to avoid contracting West Nile Virus. Use of mosquito repellent was the top precaution taken in 2004 and 2005 with 64.2 percent and 66.3 percent respectively. Less than 30 percent of respondents stated they avoided outdoor activities for both years.

Table 51 Precautions Taken to Avoid Contracting West Nile Virus, 2004 and 2005				
	2005		2004	
	# Respondents	Percent	# Respondents	Percent
Use mosquito repellent	6,671	66.3	5,970	64.2
Check property for places mosquitoes can breed	6,668	49.3	5,968	49.7
Wear long pants and long sleeved shirts	6,668	37.6	5,964	43.4
Avoid outdoor activities	6,661	27.0	5,964	28.3

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2004 and 2005